

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A computer-readable storage medium having thereon
~~computer-executable instructions for performing a method~~ comprising:
computer-executable instructions thereon for performing a method, the method
comprising:
establishing at least one connection to at least one computer network,
each computer network having at least one network attribute,
each network attribute associated with at least one identity confidence
modifier,
each identity confidence modifier specifying an identity confidence
transformation, and
each network attribute having a value;
issuing an issued network identifier for at least one computer network of said at least
one computer network; and
determining an identity confidence for each issued network identifier with respect to
at least one current computer network,
the identity confidence for each issued network identifier comprising a
probability of correct identification of the at least one current computer network, and
the step of determining the identity confidence comprising:
for each current computer network and each network attribute,
applying at least one of said at least one identity confidence modifier
associated with the network attribute to the identity confidence of each issued
network identifier if the value of the network attribute of the computer
network identified by the issued network identifier matches the value of the
network attribute of the current computer network,
wherein applying the at least one of said at least one identity
confidence modifier to the identity confidence comprises transforming the
identity confidence in accordance with the identity confidence transformation
specified by the identity confidence modifier.

2. (Currently amended) The computer-readable storage medium of claim 1, wherein the method further comprises responding to a request for an identity of said at least one current computer network with a response, the response comprising:

at least one issued network identifier; and

for each issued network identifier in the response, the identity confidence for the issued network identifier determined with respect to said at least one current computer network.

3. (Currently amended) The computer-readable storage medium of claim 2, wherein:

each identity confidence has a value, the value ranging from a minimum identity confidence value to a maximum identity confidence value; and

the value of each identity confidence in the response is the maximum identity confidence value.

4. (Currently amended) The computer-readable storage medium of claim 2, wherein:

each identity confidence has a value; and

the value of each identity confidence in the response is above a minimum identity confidence response threshold.

5. (Currently amended) The computer-readable storage medium of claim 1, wherein each issued network identifier comprises a globally unique identifier (GUID).

6. (Canceled)

7. (Canceled)

8. (Currently amended) The computer-readable storage medium of claim [[7]] 1, wherein each identity confidence modifier specifies a linear identity confidence transformation.

9. (Currently amended) The computer-readable storage medium of claim 1, wherein:

each computer network has a plurality of network attributes, the plurality of network attributes comprising:

at least one passive network attribute; and

at least one active network attribute;

each passive network attribute is associated with at least one passive network attribute identity confidence modifier;

each active network attribute is associated with at least one active network attribute identity confidence modifier;

~~each network attribute has a value;~~

the method further comprises retrieving the value of each active network attribute, the step of retrieving the value of each active network attribute comprises comprising generating network traffic on the computer network that has the active network attribute; and

determining the identity confidence for each issued network identifier with respect to said at least one current computer network further comprises:

for each current computer network and each passive network attribute, applying at least one of said at least one passive network attribute identity confidence modifier associated with the passive network attribute to the identity confidence of each issued network identifier if the value of the passive network attribute of the computer network identified by the issued network identifier matches the value of the passive network attribute of the current computer network; and

for each current computer network and each active network attribute, applying at least one of said at least one active network attribute identity confidence modifier associated with the active network attribute to the identity confidence of each issued network identifier if the value of the active network attribute of the computer network identified by the issued network identifier matches the value of the active network attribute of the current computer network.

10. (Currently amended) The computer-readable storage medium of claim 1, wherein:

each computer network has at least one passive network attribute;

each passive network attribute is associated with at least one passive network attribute identity confidence modifier;

each issued network identifier is associated with a learned identity confidence modifier;

~~each network attribute has a value;~~

the method further comprises retrieving the value of each passive network attribute [[is]] independent of generating network traffic on the computer network that has the passive network attribute; and

determining the identity confidence for each issued network identifier with respect to said at least one current computer network further comprises:

for each current computer network and each passive network attribute, applying at least one of said at least one passive network attribute identity confidence modifier associated with the passive network attribute to the identity confidence of each issued network identifier if the value of the passive network attribute of the computer network identified by the issued network identifier matches the value of the passive network attribute of the current computer network; and

for each current computer network, applying, to the identity confidence of each issued network identifier, the learned identity confidence modifier associated with the issued network identifier if the identity confidence of the issued network identifier is above a minimum learned modification identity confidence threshold.

11. (Currently amended) The computer-readable storage medium of claim 10, wherein:

a first set of identity confidences comprises the identity confidences determined for each issued network identifier with respect to said at least one current computer network;

each computer network has a plurality of network attributes, the plurality of network attributes comprising:

at least one passive network attribute; and

at least one active network attribute;

each active network attribute is associated with at least one active network attribute identity confidence modifier;

the method further comprises:

retrieving the value of each active network attribute ~~comprises, the step of~~
retrieving the value of each network attribute comprising generating network traffic
on the computer network that has the active network attribute; and
~~the method further comprises:~~

determining, as a result of at least one active network attribute becoming
available, a second set of identity confidences such that determining the second set of
identity confidences comprises:

applying at least one active network attribute identity confidence
modifier to the second set of identity confidences; and

adjusting the learned identity confidence modifier associated with each
issued network identifier so that if the first set of identity confidences were to
be re-determined then differences between a re-determined first set of identity
confidences and the second set of identity confidences would be minimized.

12-20 (Canceled)

21. (Currently amended) A computerized system, comprising a network
fingerprinting component configured to, at least:

issue at least one network identifier for at least one computer network;

maintain a set of issued network identifiers; [[and]]

maintain a set of current identity confidences, the set of current identity confidences
comprising an identity confidence for each issued network identifier with respect to at least
one current computer network, the identity confidence for each issued network identifier
comprising a probability of correct identification of the at least one current computer
network;

maintain a set of identity confidence modifiers, the set of identity confidence
modifiers comprising at least one identity confidence modifier for each network attribute in
the set of current network attributes, each at least one identity confidence modifier specifying
a transformation of at least one identity confidence; and

apply at least one identity confidence modifier to the at least one identity confidence,
comprising transforming the at least one identity confidence in accordance with the
transformation specified by the at least one identity confidence modifier.

22. (Original) The computerized system of claim 21, wherein the network fingerprinting component is further configured to, at least:

maintain a set of issued network attributes, the set of issued network attributes comprising, for each issued network identifier in the set of issued network identifiers, at least one network attribute of a computer network identified by the issued network identifier; and

maintain a set of current network attributes, the set of current network attributes comprising at least one network attribute of each current computer network.

23. (Canceled)

24. (Original) The computerized system of claim 21, wherein:

each computer network has a plurality of network attributes, the plurality of network attributes comprising:

at least one passive network attribute; and

at least one active network attribute;

each network attribute has a value;

retrieving the value of each active network attribute comprises generating network traffic on the computer network that has the active network attribute; and

the network fingerprinting component is further configured to, at least:

maintain a set of issued passive network attributes, the set of issued passive network attributes comprising, for each issued network identifier in the set of issued network identifiers, at least one passive network attribute of a computer network identified by the issued network identifier;

maintain a set of issued active network attributes, the set of issued active network attributes comprising, for each issued network identifier in the set of issued network identifiers, at least one active network attribute of a computer network identified by the issued network identifier;

maintain a set of current passive network attributes, the set of current passive network attributes comprising at least one passive network attribute of each current computer network; and

maintain a set of current active network attributes, the set of current active network attributes comprising at least one active network attribute of each current computer network.

25. (Original) The computerized system of claim 24, wherein the network fingerprinting component is further configured to, at least:

maintain a set of passive network attribute identity confidence modifiers, the set of passive network attribute identity confidence modifiers comprising at least one passive network attribute identity confidence modifier for each passive network attribute in the set of current passive network attributes;

maintain a set of active network attribute identity confidence modifiers, the set of active network attribute identity confidence modifiers comprising at least one active network attribute identity confidence modifier for each active network attribute in the set of current active network attributes;

apply at least one passive network attribute identity confidence modifier to at least one identity confidence; and

apply at least one active network attribute identity confidence modifier to said at least one identity confidence.

26. (Original) The computerized system of claim 25, wherein the network fingerprinting component is further configured to, at least:

maintain a set of learned identity confidence modifiers, the set of learned identity confidence modifiers comprising at least one learned identity confidence modifier for each issued network identifier in the set of issued network identifiers; and

apply at least one learned identity confidence modifier to at least one identity confidence.

27. (Original) The computerized system of claim 26, wherein the network fingerprinting component is further configured to, at least, adjust the set of learned identity confidence modifiers so as to minimize differences between a first set of current identity confidences and a second set of current identity confidences, the first set of current identity confidences determined before retrieving active network attributes for said at least one

current computer network, and the second set of current identity confidences determined after retrieving active network attributes for said at least one current computer network.

28. (Original) The computerized system of claim 25, wherein the network fingerprinting component is further configured to, at least:

for each issued network identifier in the set of issued network identifiers and for each passive network attribute in the set of current passive network attributes, apply at least one of said at least one passive network attribute identity confidence modifier for the passive network attribute to the identity confidence for the issued network identifier if the value of the passive network attribute in the set of current passive network attributes matches the value of the passive network attribute for the issued network identifier in the set of issued passive network attributes; and

for each issued network identifier in the set of issued network identifiers and for each active network attribute in the set of current active network attributes, apply at least one of said at least one active network attribute identity confidence modifier for the active network attribute to the identity confidence for the issued network identifier if the value of the active network attribute in the set of current active network attributes matches the value of the active network attribute for the issued network identifier in the set of issued active network attributes.

29. (Canceled)

30. (Currently amended) The computerized system of claim ~~[[29]]~~ 21, wherein each identity confidence modifier specifies a linear transformation of the identity confidence.

31. (Original) The computerized system of claim 21, wherein each network identifier is a globally unique identifier (GUID).